US Army Corps of Engineers
Philadelphia District

Innovative Creation of Piping Plover Habitat at the Cape May National Wildlife Refuge

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Planning Community of Practice Conference
May 2008

Philadelphia District RSM

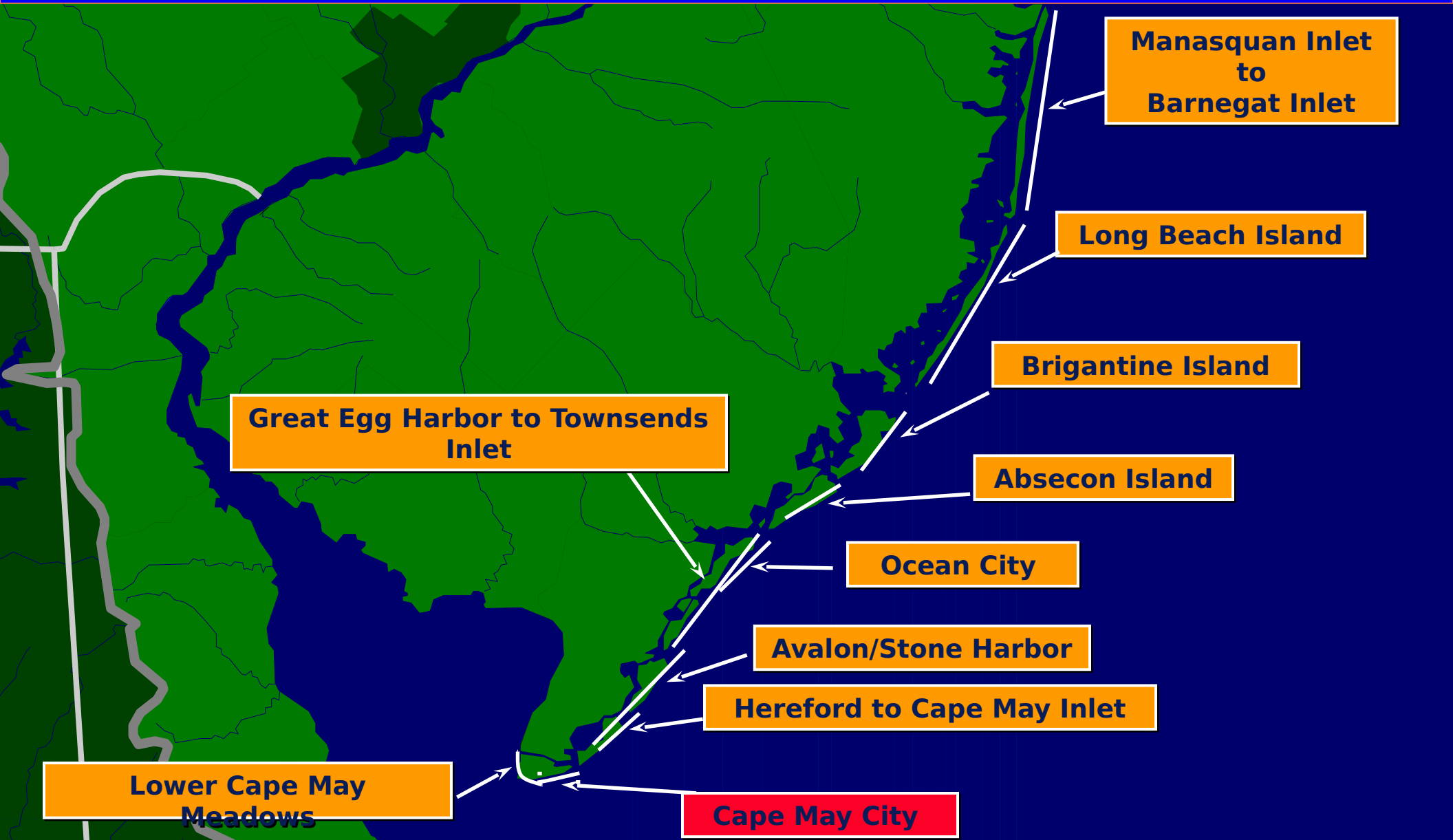
Regional Sediment Management (RSM)

A systems-based approach to managing sediment resources within the context of regional strategies (watershed, estuarine, coastal) that address integrated sediment needs and opportunities.

Three focus areas:

- Coastal
- Dredging & Disposal
- Watershed Sediment Management

Philadelphia District Shore Protection and Ecosystem Restoration Projects in New Jersey



RSM Program
Cape May, NJ
US Army Corps
of Engineers
Philadelphia District

Cape May National Wildlife Refuge
Wildwoo
U.S. Coast Guard
Cape May Point
Cape May Meadows
Cape May City
Cape May Inlet
Atlantic Ocean

Goal is to move sand from here....

.....To here via a sand bypassing system .

Problem:

- Sand bypassing had potential to impact piping plover nesting habitat in updrift fillet

Solution:

- Pre-mitigation of potential impacts through creation of alternate nesting habitat on adjacent USFWS

Creation of Plover Habitat at the Cape May National Wildlife Refuge

Goals:

- Create an “overwash area” for piping plovers updrift of Cape May Inlet jetties
- No net loss of plover nesting habitat
- Foster agency coordination and support for sand bypass system
- Evaluate benefits of habitat creation for other NJ beachfill projects

Existing Site Conditions

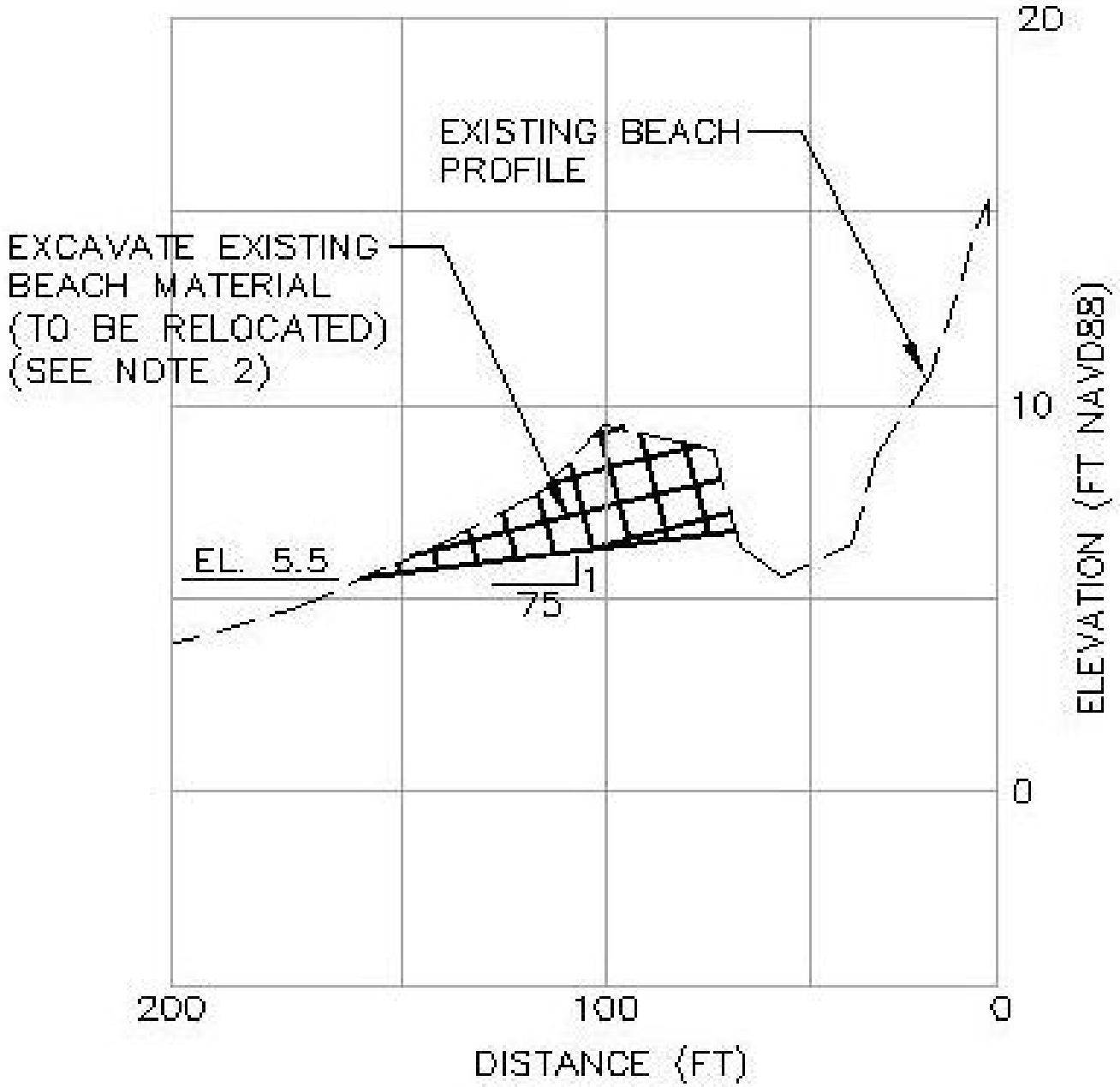
- Narrow dry beach
- Heavily vegetated beach
- Primary and secondary dunes
- Woody vegetation landward of dune

Challenges

- Goals of resource agencies (breach dune)
- Permitting issues
- Funding (source &
- Timing restriction
- Construction

Innovative Solutions

- Modification of resource agencies' plan
- Support from resource agencies aided in permitting hurdles
- Work performed by NAP Operations Division
  - Completed January 2007
  - Funded by NJ Alternative Nourishment Study



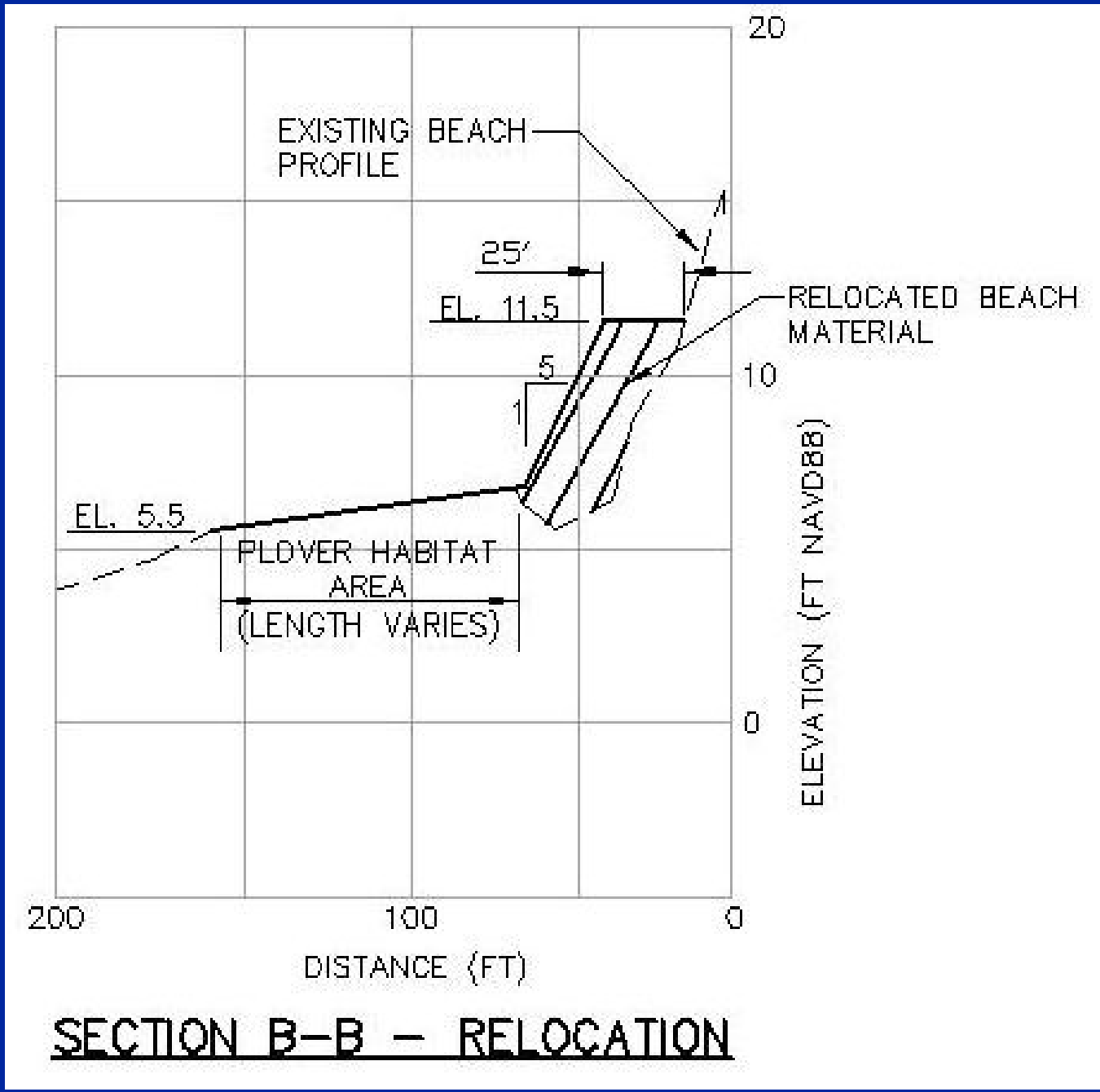
SECTION A–A – EXCAVATION

Selected Plan

- Scraped 2,600 cy of sand
- Lowered existing elevation
- Removed existing vegetation

Selected Plan (cont.)

- Relocated scraped sand to dune face
- Created 1 acre of piping plover nesting habitat
- Existing elevation maintained for



Before Construction

1/24/07

During Construction

1/31/07
New Habitat
Area

New Habitat Area

Build It and They Will Come

- Until 2007, no recorded nests in Wildlife Refuge
- 2007 nesting occurred but all chicks lost to predation
- Birds utilized nesting habitat within a few months of creation
- Nor'easter flooded out nests in Coast Guard beach, but nests in new habitat area survived
- USFWS considers this a huge succes
  and hopes for more birds this year

Key Take Away Points

- Agency coordination is critical for successful projects
- Think outside the box
- Restoration sometimes involves habitat trade- offs
- More than one way to accomplish goals